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(54) **POWER DISTRIBUTION CONTROL SYSTEM**

(57) A power distribution control system having a string of power assets comprising at least two different power assets selected from sources, stores and responsive loads is disclosed. The assets and associated local routers communicate with a central server and attempt to fulfil high level aims of the server by negotiating times and quantities of power transfer between themselves. Preferably a database stores parameters in relation to

the power assets. Preferably a control system at the server anticipates future activity, such as future peaks in demand or supply, in the grid, and local power assets prepare in response. Preferably the power assets communicate between themselves on a peer-to-peer basis and collectively confirm to the server their ability to modify their collective behaviour in response to an event in the grid.

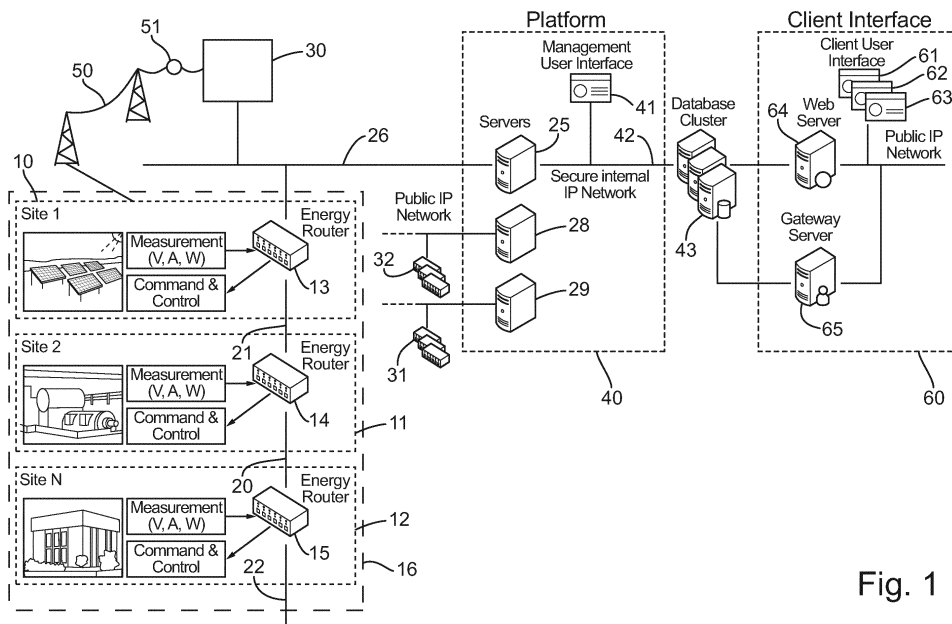


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
EP 17 20 4782

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	Aris Dimeas ET AL: "Microgrids Control Issues" In: "Microgrids", 26 December 2013 (2013-12-26), John Wiley and Sons Ltd, Chichester, United Kingdom, XP055286031, ISBN: 978-1-118-72068-4 pages 25-80, DOI: 10.1002/9781118720677.ch02,	1,5	INV. G06Q50/06 H02J13/00 H02J3/14 H02J3/28
Y	* section 2.6; figure 2.8 *	2-4,8, 14,15	
Y	----- GB 2 472 280 A (RLTEC LTD [GB]) 2 February 2011 (2011-02-02)	2-4,8, 14,15	
A	* page 19, paragraph 2 - page 20, paragraph 2; figure 7 * * page 20, paragraph 3 * * page 25, paragraph 1 *	6,7	
A	----- Anonymous: "Demand response - Wikipedia", 27 July 2014 (2014-07-27), XP055438033, Retrieved from the Internet: URL:https://en.wikipedia.org/w/index.php?title=Demand_response&oldid=618737226#cite_note-bookSG-7 [retrieved on 2018-01-03] * page 2, paragraph 2 - paragraph 3; claim 18 *	5,10	TECHNICAL FIELDS SEARCHED (IPC) G06Q H02J
A	----- US 2014/117781 A1 (KESTEN-KÜHNE JANIS [DE] ET AL) 1 May 2014 (2014-05-01) * paragraph [0036]; claim 7; figures 1,3,4 *	1-15	

-The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 January 2018	Examiner Thielemann, Benedikt
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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1-15

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 17 20 4782

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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1. claims: 1-15

A centrally controlled power distribution control system
with demand response asset management

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2. claim: 16

A decentralized, agent-based power distribution control
system with measuring power demand or supply at the assets.

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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 17 20 4782

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-01-2018

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